

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended): A Mucosal-mucosal vaccine adjuvants comprising isolated bacterial flagellins as an active component,

wherein said flagellins are obtained from *Vibrio vulnificus*.

2. (Canceled).

3. (Currently amended): The mucosal vaccine adjuvants according to claim 1, wherein said *Vibrio vulnificus* flagellins are one or more selected from the group consisting of flagellin proteins of *Vibrio vulnificus* encoded by the peptides of

flaA set out in DNA SEQ ID NO: 1 or amino acid SEQ ID NO: 2,

flaB set out in DNA SEQ ID NO: 3 or amino acid SEQ ID NO: 4,

flaF set out in DNA SEQ ID NO: 5 or amino acid SEQ ID NO: 6,

flaC set out in DNA SEQ ID NO: 7 or amino acid SEQ ID NO: 8,

flaD set out in DNA SEQ ID NO: 9 or amino acid SEQ ID NO: 10, ~~or~~ and

flaE set out in DNA SEQ ID NO: 11 or amino acid SEQ ID NO: 12.

4. (Withdrawn): A method of manufacturing immunogen having adjuvanticity by flagellin, which comprises substituting the genes encoding protein antigen epitopes for

the genes between the N-terminal regions of FlaA of amino acid sequence 1-191, FlaB of amino acid sequence 1-191, FlaF of amino acid sequence 1-191, FlaC of amino acid sequence 1-191, FlaD of amino acid sequence 1-191 and FlaE of amino acid sequence 1-189;

and the C-terminal regions of FlaA of amino acid sequence 277-376, FlaB of amino acid sequence 278-377, FlaF of amino acid sequence 278-377, FlaC of amino acid sequence 285-385, FlaD of amino acid sequence 278-377 and FlaE of amino acid sequence 276-375 among the structural components of *Vibrio vulnificus* set out in SEQ ID NO: 1 to SEQ ID NO: 12.

5. (Withdrawn): The method according to claim 4, wherein said protein antigen epitopes are tetanus toxoid, immunogenic epitopes of influenza virus, immunogenic epitopes of human papilloma virus that induces uterine cervical cancer, pneumococcal antigen PspA or sperm.

6. (Withdrawn): Mucosal vaccine adjuvants comprising the immunogens prepared by the method of claim 4 as an active component.

7. (Currently amended): The mucosal vaccine adjuvants according to claims 1 or 3 ~~any one of claims 1-3~~, wherein said vaccine adjuvants ~~are adjuvants for~~ is an adjuvant for vaccine selected from the group consisting of an anti-toxin vaccine; a live attenuated or killed vaccine; an anti-viral vaccine; an anti-cancer vaccine; an anti-sperm contraceptive vaccine; or a recombinant protein, and/or peptide vaccine.

8. (Previously amended): The mucosal vaccine adjuvants according to claim 7, wherein the anti-toxin vaccine is against tetanus toxoid; the live attenuated or killed vaccine is against cholera and/or typhoid fever; the anti-viral vaccine is against influenza and/or SARS; and the anti-cancer vaccine is against uterine cervical cancer.

9. (Withdrawn-Previously presented): The mucosal vaccine adjuvants according to claim 6, wherein the vaccine adjuvants are adjuvants for an anti-toxin vaccine; a live attenuated or killed vaccine; an anti-viral vaccine; an anti-cancer vaccine; an anti-sperm contraceptive vaccine; or a recombinant protein or peptide vaccine.